Remarks

Upon entry of the foregoing amendment, claims 1-4 and 6-8 are pending in the application, with claim 1 being the sole independent claim. Claim 5 is sought to be cancelled without prejudice to or disclaimer of the subject matter therein. Claim 8 was withdrawn from consideration by the Examiner.

Claim 1-4 and 6-8 have been amended to better conform with U.S. practice and/or to correct obvious typographical errors. Support for the amendments is found in the originally filed claims and throughout the specification as filed. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

I. Rejection under 35 U.S.C. § 112, Second Paragraph

Claim 5 was rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Applicants respectfully traverse this rejection.

The cancellation of claim 5 renders the rejection moot. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection.

II. Rejection under 35 U.S.C. § 101

Claim 5 was rejected under 35 U.S.C. § 101 as allegedly for failing to set forth any steps involved in the use. Applicants respectfully traverse this rejection.

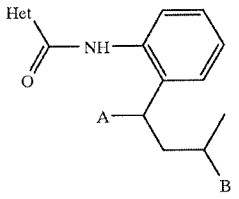
The cancellation of claim 5 renders the rejection moot. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection.

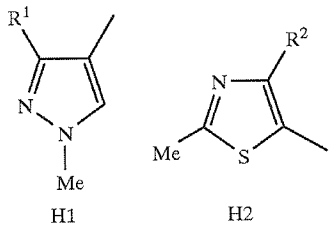
III. Rejection under 35 U.S.C. § 103

Claims 1-4, 6 and 7 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Yoshikawa *et al.* (U.S. Pat. No. 5,914,344) ("US '344") and Japanese Patent Appl. Pub. No. JP 2001-72510 ("JP '510"). Applicants respectfully traverse this rejection.

A. Claims 1-4, 6 and 7 Are Not Prima Facie Obvious over the Cited References

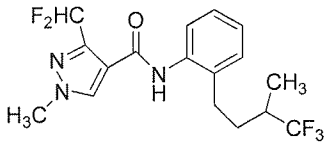
US '344 discloses a substituted carboxanilide derivative represented by the formula (1):



> wherein A is a hydrogen atom or methyl, ***B is methyl or ethyl***, with the proviso that the case wherein A is methyl and B is ethyl group is excluded and Het is a heterocyclic group represented by the formula H1 or H2 below;
>
> 
>
> H1 H2
>
> wherein R^1 is trifluoromethyl or difluoromethyl, and R^2 is trifluoromethyl, difluoromethyl or methyl group, with the proviso that the case wherein A is methyl and B is ethyl group is excluded.

(US '344, col. 4, lines 1-32 (emphasis added).)

The present invention is directed to a haloalkyl carboxamide of formula (I) as represented by the elected compound of example 2 of following structure:



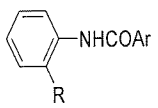
Thus, there is at least one difference between the compounds of US '344 and the instant elected compound: the substitution of the alkyl group off the phenyl ring. As shown above, the compounds of US '344 require a substituent group "B" being **methyl or ethyl**, whereas instant elected compound contains **trifluoromethyl** at the same position. In addition, US '344 does not disclose or provide a reason to make the presently claimed compounds, as represented by the elected compound shown above.

However, the Examiner asserted that:

> JP'510 is cited to show that in the structurally similar compounds and composition, alkyl and haloalkyl are equivalent. See, page 2, formula (I), formula (A2), and see the English abstract.
>
> It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to modify US'344, by substituting haloalkyl for alkyl for B, as taught by JP'510, because the latter reference is expressly suggesting equivalence of alkyl and haloalkyl, with the reasonable expectation of achieving a successful composition for combating undesirable microorganisms, absent evidence to the contrary.

(Office Action, pages 4 and 5.) Applicants respectfully disagree.

JP '510 discloses a compound of formula (I):



> wherein "R = C3-12 linear or branched (halo)alkyl, C3-10 linear or branched (halo)alkenyl, (C1-4 alkyl-substituted) C3-10 (halo)cycloalkyl, (un)substituted Ph; . . .."

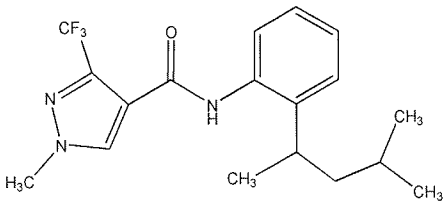
(JP '510, page 1, formula (I), and the English Abstract.)

Thus, at most, JP '510 discloses carboxanilide compounds, wherein the "R" group off the phenyl ring may be an alkyl or a haloalkyl group. However, JP '510 does not teach that the alkyl group and the haloalkyl are equivalent, as asserted by the Examiner.

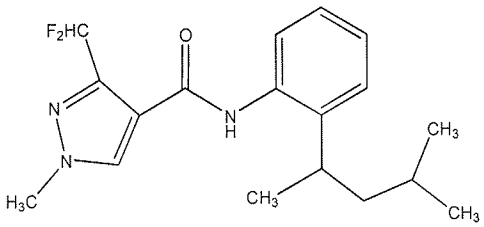
Even assuming, *arguendo*, that a person of ordinary skill in the art had a reason to modify the compounds of US '344, there are numerous positions of the compounds (other than the alky group off the phenyl ring) that could be modified and numerous substituents (other than haloalkyl) that could be employed for the alkyl group. The Examiner has not provided adequate rationale why one of ordinary skill in the art would modify the compounds of US '344 in the specific manner, *i.e.*, replacing the methyl or ethyl group (the "B" substituent of the compounds of US '344) with trifluoromethyl group, to arrive at the elected compound of present invention.

Furthermore, Applicants contend that even assuming, *arguendo*, that a person of ordinary skill in the art would modify the compounds of US '344, by replacing the methyl or ethyl group (the "B" substituent) with a haloalkyl group, specifically with trifluoromethyl group as suggested by the Examiner, one would not have had a reasonable expectation of success in making fungicides, because as discussed in detail below, even a change from methyl to propyl of the "B" substitutent of the compounds of US '344 led to a complete loss of fungicidal activities.

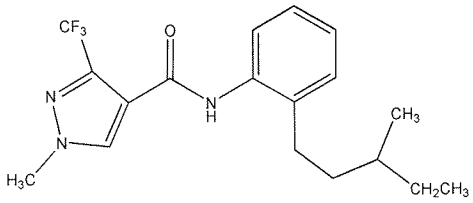
US '344 discloses 4 compounds wherein "Het" is H1 (substituted pyrazole):



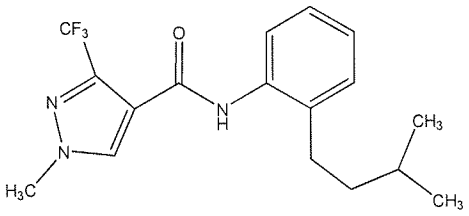
(Compound No. 1)



(Compound No. 2)



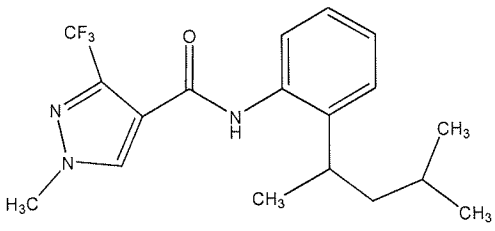
(Compound No. 3)



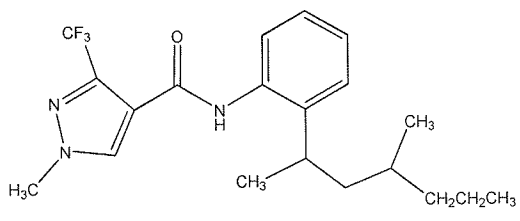
(Compound No. 4)

(US '344, col. 17, line 41 through col. 19, line 56; and col. 20, lines 19-33, Examples 2-4 and 7, Compounds Nos. 1-4.)

US '344 further discloses physiological activities of these 4 compounds against *Pyricularia oryzae*, *Botrytis cinerea* and *Sphaerotheca fuliginea*, as compared to those of 12 closely related reference compounds (Reference Compounds 4-12). (*See* US '344, col. 24, line 16 through col. 26, line 56, Test Examples 1-3 and Table 1.) The difference between the compounds of US '344 and the reference compounds is the alkyl groups off the phenyl ring. For example, the difference between Compound No. 1 of US '344 and Reference Compound 11 is shown below:

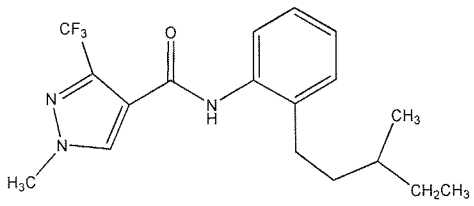


(Compound No. 1)

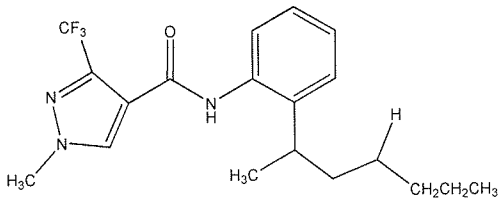


(Reference Compound 11)

The difference between Compound No. 3 of US '344 and Reference Compound 8 is shown below:



(Compound No. 3)



(Reference Compound 8)

As shown in Table 1 of US '344, Compound No. 1 has a control value of **100** against *Pyricularia oryzae*, *Botrytis cinerea* and *Sphaerotheca fuliginea*, whereas Reference Compound 11 has a control value of **0** against *Pyricularia oryzae*, *Botrytis cinerea* and *Sphaerotheca fuliginea*. Also, as shown in Table 1 of US '344, Compound No. 3 has a control value of **100** against *Pyricularia oryzae*, *Botrytis cinerea* and *Sphaerotheca fuliginea*, whereas Reference Compound 8 has a control value of **0** against *Pyricularia oryzae*, *Botrytis cinerea* and *Sphaerotheca fuliginea*.

Thus, US '344 discloses that the alkyl group off the phenyl ring and the substitutions therein are critical to the physiological activities of the compounds of US '344. Even a change from methyl to propyl of the "B" substitutent of the compounds of US '344 (*comparing* Compound No. 1 to Reference Compound 11) led to a complete loss of fungicidal activities. Thus, contrary to the Examiner's assertion, one of ordinary skill in the art would not have modified the compounds of US '344 to give the compounds of the claimed invention, as they might expect that such modification would have destroyed the physiological activity of the compounds. This data refutes the Examiner's assertion that alkyl and haloalkyl groups at this position are equivalent.

In sum, claims 1-4, 6 and 7 are not *prima facie* obvious over US '344 because the elected compound of the present invention is structurally dissimilar to the compounds of US '344; and neither US '344, nor JP '510 provides adequate rationale to modify the compounds of US '344 in a specific manner to arrive at the elected compound of present invention, with a reasonable expectation of success. Applicants respectfully request that the Examiner reconsider and withdraw the rejection.

B. The Evidence of Superior Fungicidal Activity of Presently Claimed Compound Rebuts Any Prima Facie Case of Obviousness

Even assuming, *arguendo*, that a *prima facie* case of obviousness had been established, which it had not, the unexpected superior fungicidal activity of presently claimed compound as compared to a compound of US '344, is sufficient to rebut the *prima facie* case of obviousness for the elected species.

Applicants submit herewith a Declaration by Dr. Peter Dahmen under § 1.132 ("the Declaration"), which provides comparative results of fungicidal activities between the elected compound of present invention and a compound according to US '344.

As shown in Table A of the Declaration, the elected compound (example 2) of the present invention (at an application rate of 500 ppm) showed an efficacy of 100% against *Septoria tritici*, whereas the compound of US '344 (at the same application rate of 500 ppm) only had an efficacy of 75%.

Thus, the data in the Declaration demonstrates that the elected compound example 2 has an unexpected superior fungicidal activity over a comparative compound of US '344.

Accordingly, for at least the reasons set forth above, Applicants respectfully submit that the present claims 1-4, 6 and 7 are not obvious over the cited references.

IV. Provisional Nonstatutory Obviousness-type Double Patenting Rejection

Claims 1-7 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 11, 14 and 17 of co-pending Appl. No. 10/557,083 ("the '083 application"). Applicants respectfully traverse this rejection.

The cancellation of claim 5 renders the rejection of this claim moot.

U.S. Appl. No. 10/557,083 issued as U.S. Patent No. 7,687,531 B2 ("the '531 patent") on March 30, 2010 with 4 claims, with claims 1 and 4 being the independent claims.

Solely to expedite allowance of the claims, and not in acquiescence to the Examiner's rejection, Applicants submit herewith a Terminal Disclaimer under 37 C.F.R. § 1.132(c) over the '531 patent. Accordingly, this rejection has been overcome. Thus, Applicants respectfully request that the rejection be withdrawn.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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